

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 8333A

C

Roll No.....

Unique Paper Code : 217375

Name of the Paper : Paper X – BIOLOGY OF LIFE FORMS

Name of the Course : B.Sc. (Prog.) Applied Life Science / II year

Semester : III

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt all questions.

1. (a) With the help of well labeled diagrams, compare the anatomical characters of a monocot leaf with that of a dicot leaf.

OR

Write down the salient features of the bryophytes and their economic importance. (10)

- (b) Describe the life cycle of Rhizopus

OR

Asexual reproduction in volvox (5)

2. Differentiate between **any three** of the following :

- (a) Prokaryotic and Eukaryotic cells
- (b) Cell walls of Gram+ve and Gram-ve bacteria
- (c) Lytic and Lysogenic cycle
- (d) Diplontic and diplobiontic life cycle in Algae. (3×5=15)

P.T.O.

3. Write short notes (**any five**) :

- | | | |
|-------------------|-------------------------|----------|
| (a) Parasexuality | (b) Mycoplasma | |
| (c) Haustorium | (d) Endospore | |
| (e) Dikaryon | (f) Transformation | |
| (g) Murein | (h) Heterothallic fungi | (5×3=15) |

4. (a) Draw neat, well labeled diagrams of the following (**any two**) :

(i) L.S. capsule of *Funaria*

(ii) T.S. *Pinus* needle

(iii) TMV (2×5=10)

(b) Comment on the economic importance of Gymnosperms. (5)

5. Briefly explain the following (**any three**) :

(a) Fern prothallus

(b) Transmission of viruses

(c) Bacteria in food industry

(d) Economic importance of lichens

(e) Diagnostic features of algae (3×5=15)